

REMARKS

The Office Action of August 27, 2004 presents the examination of claims 1-19, 34-37, 39 and 40. Claim 39 is indicated as allowed.

The present paper cancels claims 1-19, 34-35, 37 and 40. New claims 41-51, dependent upon claim 39 and reciting limitations from among the previous claims 2-19, 34 and 35, are presented. No new issue for consideration by the Examiner is raised by any of these amendments.

New claim 52 is directed to the subject matter of the prior claim 34 combined with the features of allowed claim 39 found to confer patentability by the Examiner. Claim 52 is written in independent form because the order of the formation of the polymeric material and of the viologen salt are switched between claims 39 and 52. .

This method of amendment was chosen for its editorial simplicity.

Claim 39 is amended to provide antecedent basis for the recitations of claim 42.

Entry of this amendment is respectfully requested, as the amendments to the claims place them into condition for allowance or at least into better condition for appeal.

Rejections over prior art

Claims 1, 7-11, and 17 remain rejected as being unpatentable over Mikhael '017 in view of Kato '762. Claim 2 remains rejected as being unpatentable over Mikhael '017 in view of Kato '762 and IBM Technical Disclosure Bulletin. Claims 1-5, 7-11, 15, 17, and 18 still stand rejected as being unpatentable over Afzali-Ardakani '370 in view of Kato and IBM. Claim 6 remains rejected over Afzali-Ardakani in view of Kato, IBM, and Beratan. Claims 12-16 remain rejected over Mikhael in view of Kato, and Inata '062. Claims 12-16 remain rejected over Afzali-Ardakani in view of Kato, and Inata '062. Claims 19 and 35 remain rejected over Afzali-Ardakani in view of Kato, IBM, Renbaum, and Spence '355. Claim 34 remains rejected over Afzali-Ardakani in view of Kato, IBM, Spence, and Allemand '379. Claims 36 and 37 remain rejected over Afzali-Ardakani in view of Kato, IBM, Beratan, Pohl '233, and Renbaum.

Claims 1-35, 37 and 40 are all canceled, rendering these rejections moot as to those claims. The rejection is not applicable to the presently pending claims save 36 and 52, as all are dependent from allowed claim 39. Applicants submit that none of the above rejections are applicable to the present claim 52. The rejection of claim 36 over Afzali-Ardakani in view of Kato, IBM, Beratan, Pohl '233, and Renbaum is respectfully traversed.

As to claim 52, Applicants submit that the combination of Afzali-Ardakani, Kato, IBM, Beratan, Pohl '233 and Renbaum fails to

establish *prima facie* obviousness of the claimed invention. Applicants take note of the Examiner's statement in the Office Action of April 28, 2004 that, "... the prior art of record does not teach or suggest forming a polymeric material on [a] viologen coated substrate *in situ*." Applicants submit that neither does the prior art of record teach or suggest first forming a polymer-coated substrate *in situ*, then forming a viologen salt *in situ*. Applicants also request that the Examiner take due note of Ms. Liu's Declaration, which establishes that forming the viologen salt *in situ* results in materials that are substantially (e.g. up to five orders of magnitude) higher in their conductivity than materials made by grafting of an already-formed viologen. Ms. Liu's Declaration therefore provides evidence of unobviousness of this embodiment of the invention as well.

As to claim 36, this claim recites the feature of *in situ* formation of the viologen salt upon the substrate that the Examiner found to confer patentability upon claim 39. The Examiner might review again step b) of claim 36. Accordingly, claim 36 should be allowable for the same reasons that claim 39 is allowable.

Applicants submit that the present application well-describes and claims patentable subject matter. Withdrawal of the standing rejections and allowance of the present claims is requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully

requested to contact Mark J. Nuell (Reg. No. 36,623) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By


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